

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
12 May 2005 (12.05.2005)

PCT

(10) International Publication Number
WO 2005/042278 A3

(51) International Patent Classification⁷: **B60C 1/00**,
C08L 9/00, C08K 7/00, 3/34

(21) International Application Number:
PCT/IT2004/000598

(22) International Filing Date: 29 October 2004 (29.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PCT/EP03/12137 31 October 2003 (31.10.2003) EP

(71) Applicant (for all designated States except US): **PIRELLI PNEUMATICI S.P.A.** [IT/IT]; Viale Sarca, 222, I-20126 Milano (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GALIMBERTI, Maurizio** [IT/IT]; Pirelli Pneumatici S.p.A, Viale Sarca,

222, I-20126 Milano (IT). **GIANNINI, Luca** [IT/IT]; Pirelli Pneumatici S.p.A, Viale Sarca, 222, I-20126 Milano (IT). **FINO, Luigi** [IT/IT]; Pirelli Pneumatici S.p.A, Viale Sarca, 222, I-20126 Milano (IT).

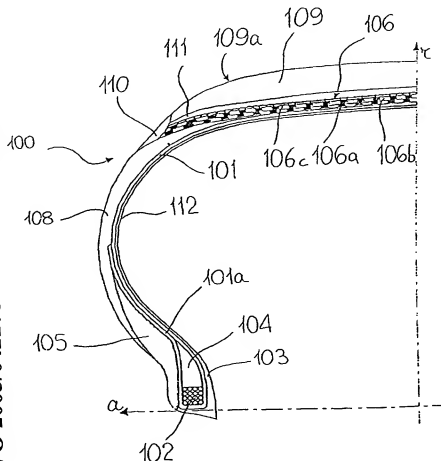
(74) Agents: **BOTTERO, Carlo**, et al.; Pirelli & C. S.P.A., 222, Viale Sarca, I-20126 Milano (IT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: "TIRE AND CROSSLINKABLE ELASTOMERIC COMPOSITION"



(57) Abstract: Tire comprising at least one structural element including a crosslinked elastomeric material obtained by crosslinking a crosslinkable elastomeric composition comprising: (a) 100 phr of at least one diene elastomeric polymer; (b) from 1 phr to 50 phr, preferably from 2 phr to 40 phr, more preferably from 5 phr to 30 phr, of at least one layered material having an individual layer thickness of from 0.01 nm to 30 nm, preferably of from 0.05 nm to 15 nm; (c) from 0.1 phr to 15 phr, preferably from 0.3 phr to 10 phr, of at least one methylene donor compound; (d) from 0.4 phr to 20 phr, preferably from 0.8 phr to 15 phr, of at least one methylene acceptor compound. Preferably, said at least one structural element is selected from bead filler, sidewall insert, tread underlayer, tread base.

WO 2005/042278 A3



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report: 23 June 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.